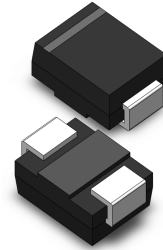


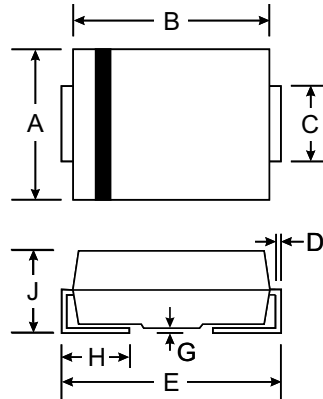
### Features

- Low voltage overshoot
- Low on-state voltage
- Does not degrade surge capability after multiple surge events within limit
- Fails short circuit when surged in excess of ratings
- Low Capacitance



### Mechanical Data

- Case: SMB/DO-214AA, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.093 grams (approx.)



SMB(DO-214AA)		
Dim	Min	Max
A	3.30	3.94
B	4.06	4.70
C	1.91	2.21
D	0.15	0.31
E	5.00	5.59
G	0.10	0.20
H	0.76	1.52
J	2.00	2.62
All Dimensions in mm		

### Surge Ratings

Series	2/10 S <sup>1</sup>	8/20 S <sup>1</sup>	10/160 S <sup>1</sup>	10/560 S <sup>1</sup>	10/1000 S <sup>1</sup>	5/310 S <sup>1</sup>	I <sub>TSM</sub> 50/60 Hz	di/dt
	2/10 S <sup>2</sup>	1.2/50 S <sup>2</sup>	10/160 S <sup>2</sup>	10/560 S <sup>2</sup>	10/1000 S <sup>2</sup>	10/700 S <sup>2</sup>		
	A min	A min	A min	A min	A min	A min		
C	500	400	200	150	100	150	50	500

Notes:

1. Current waveform in  $\mu$ s
2. Voltage waveform in  $\mu$ s

- Peak pulse current rating ( $I_{PP}$ ) is repetitive and guaranteed for the life of the product.
- $I_{PP}$  ratings applicable over temperature range of -40 C to +85 C
- The device must initially be in thermal equilibrium with -40°C < T<sub>J</sub> < +150°C

### Thermal Considerations

Symbol	Parameter	Value	Unit
T <sub>J</sub>	Operating Junction Temperature Range	- 40 to + 150	°C
T <sub>S</sub>	Storage Temperature Range	- 40 to +150	°C
R <sub>θJA</sub>	Thermal Resistance: Junction to Ambient	90	°C/W



Part Number	Marking	$V_{DRM}$ @ $I_{DRM}=5$ A	$V_S$ @100V/ S	$V_T$ @ $I_T=2.2$ A	$I_S$	$I_T$	$I_H$	$C_0$ @1MHz	
		V min	V max	V max	mA max	A max	mA min	pF min	pF max
P0080SC	P008C	6	25	4	800	2.2	50	25	150
P0300SC	P03C	25	40	4	800	2.2	50	15	140
P0640SC	P06C	58	77	4	800	2.2	150	40	60
P0720SC	P07C	65	88	4	800	2.2	150	35	60
P0900SC	P09C	75	98	4	800	2.2	150	25	55
P1100SC	P11C	90	130	4	800	2.2	150	30	50
P1300SC	P13C	120	160	4	800	2.2	150	25	45
P1500SC	P15C	140	180	4	800	2.2	150	25	40
P1800SC	P18C	170	220	4	800	2.2	150	25	35
P2000SC	P20C	180	220	4	800	2.2	150	20	35
P2300SC	P23C	190	260	4	800	2.2	150	25	35
P2600SC	P26C	220	300	4	800	2.2	150	20	35
P3100SC	P31C	275	350	4	800	2.2	150	20	35
P3500SC	P35C	320	400	4	800	2.2	150	20	35
P4000SC	P40C	360	460	4	800	2.2	150	20	35
P4500SC	P45C	400	540	4	800	2.2	150	20	35
P5000SC	P50C	440	600	4	800	2.2	150	20	35

Notes:

- Absolute maximum ratings measured at  $T_A=25$  C (unless otherwise noted).
- Devices are bi-directional.



Figure 1 - V-I Characteristics

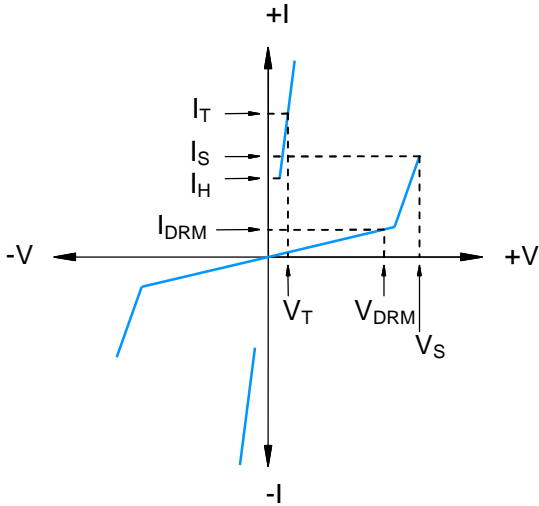


Figure 2 -  $t_r \times t_d$  Pulse Waveform

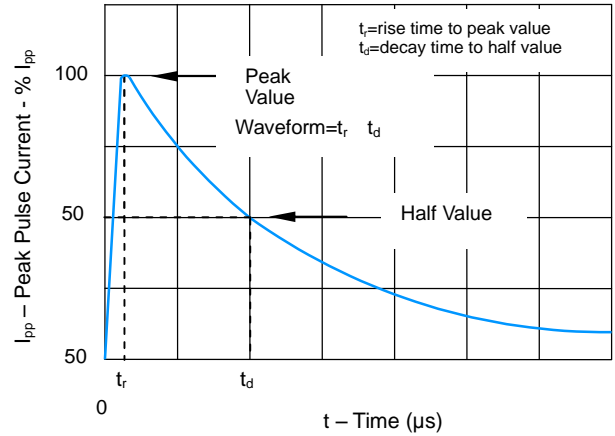


Figure 3 - Normalized  $V_S$  Change Versus Junction Temperature

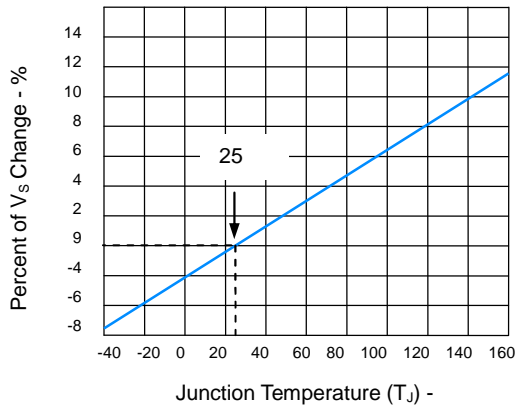


Figure 4 - Normalized DC Holding Current Versus Case Temperature

